

Manage a water reticulation system and facility for a commercial aquaculture or holding operation

Level 6

Credits 15

Purpose People credited with this unit standard are able to: explain the legislative requirements for a water reticulation system and facility; explain the management of hygiene and biosecurity; monitor and maintain the water reticulation system and facility, analyse and interpret the results, and take action to ensure the efficient operation; and analyse the risks associated with the operation of the water reticulation system and facility, and develop and implement strategies to eliminate, isolate, or minimise those risks for a commercial aquaculture or holding operation.

Subfield Seafood

Domain Aquaculture

Status Registered

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Entry information Prerequisites: Unit 17252, *Monitor and maintain reticulated water systems for onshore aquaculture or holding facilities*, and Unit 17255, *Test for water quality in an aquaculture facility*, or demonstrate equivalent knowledge and skills.

Accreditation Evaluation of documentation and visit by NZQA and industry.

Standard setting body (SSB) Primary Industry Training Organisation

Accreditation and Moderation Action Plan (AMAP) reference 0123

This AMAP can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Special notes

Definitions

legislative requirements may include but are not limited to those specified in – Resource Management Act 1991, Biosecurity Act 1993, Animal Welfare Act 1999, Fisheries Act 1996, and Health and Safety in Employment Act 1992;

biosecurity in the context of this unit standard refers to the risks to the stock associated with undesirable organisms potentially introduced to the systems or facility.

Elements and performance criteria

Element 1

Explain the legislative requirements for a water reticulation system and facility for a commercial aquaculture or holding operation.

Performance criteria

- 1.1 The explanation includes the legislative requirements for the water reticulation system and facility.
- 1.2 The explanation includes the systems implemented to manage the on-going compliance with the legislative requirements for the water reticulation system and facility.

Element 2

Explain the management of hygiene and biosecurity in the facility for a commercial aquaculture or holding operation.

Performance criteria

- 2.1 The management of hygiene in the facility is explained.
 - Range includes but is not limited to – cross contamination, drainage, personnel, equipment.
- 2.2 The management of biosecurity in the facility is explained.
 - Range includes but is not limited to – introduction of new stock, transfer of stock off site, movement of stock, movement of personnel within the facility.

Element 3

Monitor and maintain the water reticulation system and facility, analyse and interpret the results, and take action to ensure the efficient operation of the commercial aquaculture or holding operation.

Performance criteria

- 3.1 The data generated by water quality monitoring systems are analysed and interpreted, and appropriate management decisions are made to ensure the efficient and continued operation of the facility.
- Range may include but is not limited to – Biological Oxygen Demand (BOD), pH, ammonia, nitrate, nitrite, salinity, oxygen, Oxygen Reduction Potential (ORP), carbon dioxide, turbidity.
Evidence of seven is required.
- 3.2 The data generated by the equipment monitoring systems are analysed and interpreted, and appropriate management decisions are made to ensure the efficient and continued operation of the facility.
- Range may include but is not limited to – arterial reticulation equipment.
- 3.3 The importance of monitoring animal behaviour, in terms of water reticulation system management, is explained.
- 3.4 The documentation generated by the operation of the water reticulation system and facility is explained.
- 3.5 Maintenance schedules are developed and implemented to ensure the ongoing operation of the water reticulation system and facility.
- Range may include but is not limited to – electrics, pumps, filters, generators, sterilisation systems, pipework, monitoring equipment.
Evidence of four is required.
- 3.6 The service frequency and spare part requirements for each of the components described above are explained.

Element 4

Analyse the risks associated with the operation of the water reticulation system and facility and develop and implement strategies to eliminate, isolate, or minimise those risks, for a commercial aquaculture or holding operation.

Performance criteria

- 4.1 The risks associated with the operation of the water reticulation system and facility are analysed.
- Range evidence is required for a minimum of four risks for each of the following – stock, personnel, plant.
- 4.2 The strategies to eliminate, isolate, or minimise the risks as described above are developed and implemented.
- 4.3 The emergency response system implemented for the facility is explained.

Please note

Providers must be accredited by the Qualifications Authority, or an inter-institutional body with delegated authority for quality assurance, before they can report credits from assessment against unit standards or deliver courses of study leading to that assessment.

Industry Training Organisations must be accredited by the Qualifications Authority before they can register credits from assessment against unit standards.

Accredited providers and Industry Training Organisations assessing against unit standards must engage with the moderation system that applies to those standards.

Accreditation requirements and an outline of the moderation system that applies to this standard are outlined in the Accreditation and Moderation Action Plan (AMAP). The AMAP also includes useful information about special requirements for organisations wishing to develop education and training programmes, such as minimum qualifications for tutors and assessors, and special resource requirements.

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Comments on this unit standard

Please contact the Primary Industry Training Organisation sitostandards@primaryito.ac.nz if you wish to suggest changes to the content of this unit standard.